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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,146	07/18/2006	John Francis Hoke	PB60428	9414
20462 7590 12/07/2009 SMITHKLINE BEECHAM CORPORATION CORPORATE INTELLECTUAL PROPERTY-US, UW2220 P. O. BOX 1539 KING OF PRUSSIA, PA 19406-0939				
			EXAMINER WINTERBERG, NISSA M	
			ART UNIT 1618	PAPER NUMBER
			NOTIFICATION DATE 12/07/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

US_cipkop@gsk.com

Office Action Summary

Application No.

10/567,146

Applicant(s)

HOKE ET AL.

Examiner

Nissa M. Westerberg

Art Unit

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45 - 50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45 - 50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF 298)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 8/18/09

DETAILED ACTION

Applicants' arguments, filed August 18, 2009, have been fully considered but they are not deemed to be fully persuasive. The following rejections and/or objections constitute the complete set presently being applied to the instant application.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 45 – 49 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 14 - 19 and 31 - 36 of copending Application No. 10/502376 in view of Glinecke et al.

These new claims of the instant application are drawn to the same subject matter as recited in now cancelled claims 22 – 26, 30 – 40 and 42. The new claims are drawn to oral dosage form with two compositions, each containing rosiglitazone with an immediate and modified release respectively, and a third, coating compositions, containing two openings that extend through that composition to provide access to the first and second compositions, whereas the previous claims were directed to a to oral dosage form with two compositions, each containing rosiglitazone with differing release respectively, and a third, coating compositions, containing one or more opening that extend through that composition.

The new claims in the copending Application US'376, filed July 29, 2009, are drawn to the same subject as the previous version of the claims in that case, namely an oral dosage form of rosiglitazone with an coating surrounding the core with one or more (such as 2 as in claim 16) that connects the environment of use with the core that allows for release of the drug.

The former limitations were discussed in the Office Action mailed February 18, 2009 and incorporated herein by reference. The release mechanism recited in the claims of US'376 is the same mechanism as in the instant claims because the dosage forms have the same structure and the structure of the dosage form determines the mechanism of release. Therefore, the amended claims in each of these applications are not patentably distinguished from each other.

Claim Rejections - 35 USC § 112 – 1st Paragraph

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 47 – 50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

These new claims are drawn to the same subject matter as recited in now cancelled claims 22 – 26, 30 – 40 and 42. The new claims are drawn to oral dosage form with two compositions, each containing rosiglitazone with an immediate and modified release respectively, and a third, coating compositions, containing two openings that extend through that composition to provide access to the first and second compositions, whereas the previous claims were directed to a to oral dosage form with two compositions, each containing rosiglitazone with differing release respectively, and a third, coating compositions, containing one or more opening that extend through that composition. Dependent claims 24 and 36 required an immediate release for one composition while dependent claim 25 and 37 required a modified release composition. The former limitations were discussed in the Office Action mailed February 18, 2009 and incorporated herein by reference. The new limitations in regards to the increased number of openings and the specification of the release profiles for the two compositions do not result in the claims meeting the written description provision so this rejection is maintained for the reasons of record.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 45 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staniforth (US 5,004,614) in view of Glinecke et al. (WO 00/28990).

These new claims are drawn to the same subject matter as recited in now cancelled claims 22 – 26, 30 – 40 and 42 rejected in the February 18, 2009 Office Action. The new claims are drawn to oral dosage form with two compositions, each containing rosiglitazone with an immediate and modified release respectively, and a third, coating compositions, containing two openings that extend through that

composition to provide access to the first and second compositions, whereas the previous claims were directed to an oral dosage form with two compositions, each containing rosiglitazone with differing release rates, and a third, coating compositions, containing one or more openings that extend through that composition. Dependent claims 24 and 36 required an immediate release for one composition while dependent claim 25 and 37 required a modified release composition. The former limitations were discussed in the Office Action mailed February 18, 2009 and incorporated herein by reference.

With regards to the new limitations, Staniforth teaches that varying the location of the orifices and their sizes will alter the release profiles, as shown in figures 8 – 10. Figure 9 is a dosage form with three orifices while figure 10 contains two orifices. The majority of drug release occurs through the orifice although some release may occur through the coating itself. Depending on the amount of coating, drug release can occur through the orifice only when thicker coatings are applied or through the coating and the orifice when lesser amounts of coatings are applied (col 11, ln 33 - 37). With the two compositions providing, in part, the differential release of the drug, an orifice from the external environment to the composition must be provided to allow for the precise, desired release of drug.

Applicants argue that the claimed dosage form contain a unique combination of elements that have been arranged in a novel way. The Examiner is using improper hindsight analysis and provided no explanation as to why one skilled in the art would be motivated to create the formulation presently claimed. The Examiner has provided no

explanation as to why one skilled in the art would combine the recited elements in the recited manner with any expectation that such a dosage form would successfully achieve the recited results – a mean maximum plasma level concentration and/or mean area under the plasma concentration versus time curve over the dosing interval at steady state independent of food uptake. A key aspect of Staniforth is controlled release of an active agent through an opening or hole in an impermeable outer coating so the external environment does not contact the core except through the opening and that the outer coating remain in place during the dispensing period and actually teaches away from the use of an enteric coating that disintegrates in the pH environment of the small intestine. In the claimed dosage form, the enteric coat dissolves *during* release of the active agent. Multi-layer tablet in the device of a core and coating with an opening as taught by Staniforth does not provide a structure that is the same as the claimed dosage form.

These arguments are unpersuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The Examiner was unable to locate any discussion or arguments regarding Glinecke et al., the secondary reference, used in this rejection.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that

any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Staniforth discloses that hypoglycemic and hyperglycemic drugs are drugs that are suitable for controlled release dosage from a dosage form comprising a core and a coating with one more orifices (col 6, ln 21 – 22), and Glinecke et al. discloses that the anti-diabetic drug rosiglitazone in the same salt form (maleate; compound (I), p 1, ln 29 – 34) in a modified release format allows a single daily dose to maintain the glycemic control with minimal expected adverse side effects. That modified release profile can include a pulsed release profile in with non-modified (immediate) release and delayed release (p 3, ln 16 – 17). Thus, Glinecke provides a specific example of a glycemic control drug, absent in Staniforth, and provides information on a desirable release profile for rosiglitazone.

Staniforth explicitly states that a relatively thick coating of enteric materials such as cellulose acetate phthalate and polyvinyl acetate phthalate and shellac can be used to provide the required erosion behavior (col 6, ln 60 – col 7, ln 2). These are the same materials exemplified by Applicant as suitable materials for use in the instant invention (see ¶ [0036] of the PGPub of the instant application). "The prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise

discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). **MPEP 2123**, emphasis added. Therefore, Staniforth discloses that a coating of the same material, containing at least one orifice that extends through that layer to the compositions underneath is the same structure as recited by the instant claims and does not teach away from an enteric coating as asserted by Applicant.

If other structures or feature(s) are required to produce the particular parameters recited by Applicant (e.g. food independence for a particular steady state pharmacokinetic parameter) those features must be added to the claims. Otherwise, the same structure must result in the same release profile and pharmacokinetic parameters. The fact that applicant has identified a new feature that results from this particular dosage form (e.g. food independence for a particular pharmacokinetic parameter) does not render the old composition patentably new to the discovery of the new property (see MPEP 2112). Those properties flow from the structure of the dosage form itself, and Staniforth teaches that the particular configuration can be used with a wide variety of drugs, including drugs for glycemic control, and Glinecke et al. discloses such a drug and the desirability of modified release of that drug. The dosage platform of Staniforth provides one way in which that release profile can be achieved and further controlled, through the size and number of orifices in the dosage form.

9. Claims 45 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martini et al. (WO 03/068195) in view of Glinecke et al. (WO 00/28990).

These new claims are drawn to the same subject matter as recited in now cancelled claims 22 – 26, 30 – 40 and 42 rejected in the February 19, 2009 Office Action. The new claims are drawn to oral dosage form with two compositions, each containing rosiglitazone with an immediate and modified release respectively, and a third, coating compositions, containing two openings that extend through that composition to provide access to the first and second compositions, whereas the previous claims were directed to an oral dosage form with two compositions, each containing rosiglitazone with differing release rates, and a third, coating compositions, containing one or more opening that extend through that composition. Dependent claims 24 and 36 required an immediate release for one of the composition while dependent claim 25 and 37 required a modified release composition. The former limitations were discussed in the Office Action mailed February 18, 2009 and incorporated herein by reference.

With regards to the new limitations, Martini et al. discloses that two openings versus one opening of larger size results in greater release rate with less variability (p 11, In 33 – p 12, In 3). Adjustment of the size and location of these opening can result in comparable release rates under different body environments and achieve more constant dosing to a patient (p 12, In 16 - 19). Martini et al. also discloses that the core can be multilayered, having two or three layers for example (p 8, In 35 - 36). A tablet with the different release compositions are disclosed as desirable for rosiglitazone by Glinecke et al. can readily be formulated into a bi-layered form. In order for drug release

to occur, an orifice must provide a connection between each composition and the external environment.

Applicants' argue in regards to this rejection that absent hindsight, there is no reason to pick and choose among the numerous dosage forms and elements disclosed in Glinecke and Martini to select the composition and arrangement as recited in the pending claims. There is no support for the conclusion of the Examiner that as the structure recited in the prior art and the claims are the same, the various features (e.g., food independence for a particular pharmacokinetic parameter) being the same. The mechanism of drug release in Martini and Glinecke are different and there is no basis to compare mean plasma level concentrations and/or AUCs of the prior art dosage form with the claimed dosage form. One skilled in the art, without knowledge of the present invention, would not have a basis to expect the claimed dosage form would provide rosiglitazone release that results food independence for a particular pharmacokinetic parameter.

These arguments are unpersuasive. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The conclusion of obviousness is not based on whether or not the combination would have the recited pharmacokinetic properties, but whether one of ordinary skill would have a reasonable expectation in producing the recited oral dosage form of the maleate salt of rosiglitazone. Both references relate to ways in which the release profile of oral dosage forms of maleate salt of rosiglitazone can be altered and what release profiles are desirable for this particular drug.

Applicant states that there is no basis for the conclusion of the Examiner that the same structures of the same ingredients must have the same properties. How can the same composition or structures with the elements having the same composition not have the same dissolution and pharmacokinetic parameters? If other structures or feature(s) are required to produce the particular parameters recited by Applicant (e.g. food independence for a particular pharmacokinetic parameter) those features must be added to the claims. Otherwise, the same structure must result in the same release profile and pharmacokinetic parameters. The fact that applicant has identified a new feature that results from this particular dosage form (e.g. food independence for a particular steady state pharmacokinetic parameter) does not render the old composition patentably new to the discovery of the new property (see MPEP 2112). Martini et al. discloses a way in which the non-pH dependent release of rosiglitazone maleate can be achieved while Glinecke et al. discloses the desirability of modified release of that drug in having an immediate and modified release component.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nissa M. Westerberg whose telephone number is (571)270-3532. The examiner can normally be reached on M - F, 8:00 a.m. - 4 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jake M. Vu/
Primary Examiner, Art Unit 1618

NMW